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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,152	06/27/2003	Wesley G. Miller	MS#302667.01 (5064)	7887
321 7590 11/15/2007 SENNIGER POWERS ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			EXAMINER FIELDS, COURTNEY D	
			ART UNIT 2137	PAPER NUMBER
			NOTIFICATION DATE 11/15/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@senniger.com

**Supplemental  
Notice of Allowability**

Application No.

10/609,152

Examiner

Courtney D. Fields

Applicant(s)

MILLER, WESLEY G.

Art Unit

2137

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 31 August 2007.
2. ☒ The allowed claim(s) is/are 1-3, 6, 9-11, 41, 43, 45, 46 and 49.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Frank R. Agovino on 06 November 2007.

The application has been amended as follows:

Please amend the following claims:

43. (Currently Amended) The method of claim 42-**[41]**, wherein the authenticated PXE client includes an operating system generated from the executed authenticated signed boot files.

### **DETAILED ACTION**

2. Claims 1,6,41,43 and 45-46 have been amended.
3. Claims 4-5,7-8,12-40,42,44, and 47-48 have been cancelled.
4. Claims 1-3,6,9-11,41,43,45-46, and 49 are pending.

### ***Response to Arguments***

5. Applicant's arguments filed 31 August 2007 have been fully considered and they are persuasive.

### ***Allowable Subject Matter***

6. Claims 1-3,6,9-11,41,43,45-46, and 49 are allowed.

7. The following is an examiner's statement of reasons for allowance: The present invention is directed towards a three way validation and authentication of boot files transmitted from server to client in a pre-operating system environment connected servers via a network. Each independent claim identifies the uniquely distinct features **"authenticating the server before downloading the boot files, downloading signed boot files from the authenticated server, and authenticating the signed boot files before executing the boot files"**.

The closest prior art, Girard (US Patent No. 7,093,124) discloses according to one embodiment, a network is disclosed. The network includes a server computer and a client computer. The client computer accesses an authentication stack during power on self test (POST) that enables authentication of boot code that is to be downloaded from the server computer prior to control being passed to the operating system. Girard further discloses a client with a pre-installed credentials which authenticates a server via the credentials, wherein files are downloaded before the server is authenticated. However, either singularly or in combination, Girard fail to anticipate or render the above underlined limitations obvious.

The closest prior art, Carbarjal et al. (US Patent No. 6,560,706) discloses a method and apparatus for ensuring system boot image integrity and authenticity is described. In one embodiment, the invention provides security from the end of Basic Input/Output System (BIOS) initialization to the point in time at which control is transferred to a high-level operating system (OS). The OS boot image is obtained via a network connection and is checked for integrity and authority to run on a particular

platform. For this purpose, the invention provides a boot image security usage model that is simple and flexible enough to cover a variety of needs. Because receipt of boot images via a network connection can be subject to size constraints, the invention allows software to bootstrap more sophisticated security software if desired. In general, the invention utilizes one or more Remote-Boot Authorization Certificates for each group of platforms to be managed. The authorization certificate for a group of platforms is configured into each of the platforms in a group as the source of authority for allowing boot images to be executed. The authorization certificate is also the source of authority for allowing reconfiguration commands, including reconfiguration commands that transfer the source of authority to another authority. In one embodiment, IT organizations can create different authorization certificates for different groups to allow the different groups to be managed by different authorities. Authority can also be transferred between management groups. The Remote-Boot Authorization Certificates provide protection against remote-boot images that have been damaged and/or tampered with either in transit or on a server, the ability to designate and enforce which boot images are permitted, and a mechanism to limit the scope of management authorities having remote-boot authority. However, either singularly or in combination, Carbajal et al. fail to anticipate or render the above underlined limitations obvious.

The closest prior art, Barr et al. (US Patent No. 6,189,100) discloses a remote boot process uses a secret to sign and/or seal the data necessary to remotely boot a client from a server on a network to ensure the integrity of the data. The secret is generated by the server and securely delivered to the client during the initial setup of

the client. The secret contains a one-way encryption of the password for the client account on the server. Each side balances a signed message with a verify and a sealed message with an unseal. Subsequent transactions between the client and server are conducted using messages encrypted with a key generated by the server and securely delivered to the client in a message sealed using the secret. The secret can also be used in conjunction with an access data structure to prevent unauthorized users from accessing data stored on the server on behalf of the client or other users. In other aspects of the invention, the secret is replaced by a client private/public key pair. However, either singularly or in combination, Barr et al. fail to anticipate or render the above underlined limitations obvious.

8. Therefore, **claims 1,6,41,45, and 46**, and the respective **dependent claims 2-3,9-11,43, and 49** are in condition for allowance.

### ***Conclusion***

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney D. Fields whose telephone number is 571-272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00 pm; off every Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*cdi*

cdi

November 6, 2007

*Matthew Smithers*  
MATTHEW SMITHERS  
PRIMARY EXAMINER  
*Art Unit 2137*